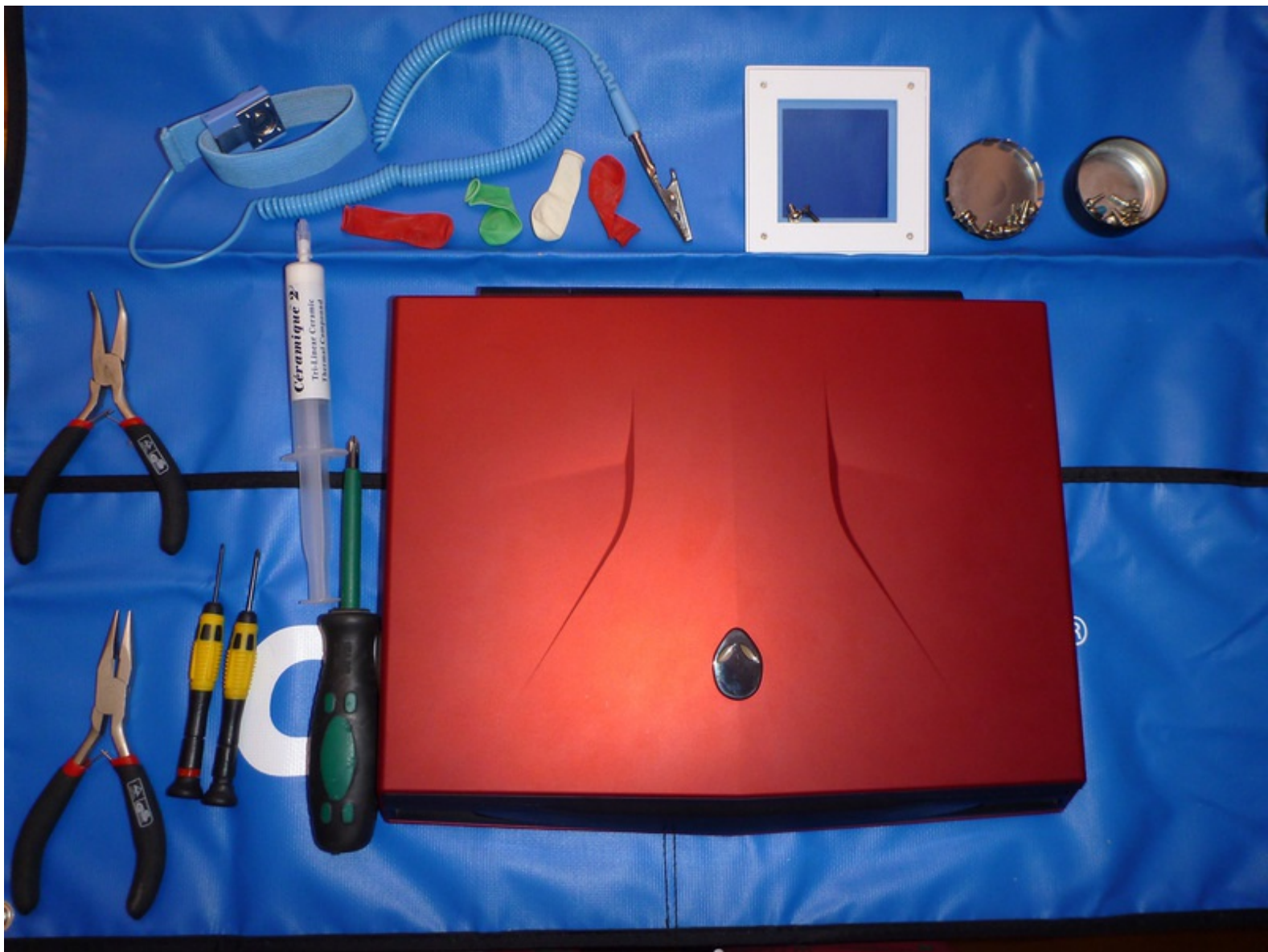




# Alienware M11xR3 Disassembly and Cleaning

This is a disassembly of the Alienware M11x R3. These instructions also apply to the R1 & R2 models.

Written By: AdrianP



## INTRODUCTION

Here you can fix common problems like keyboard replacement, dirty vents, and thermal paste replacement.

I am not responsible for damages that may be caused. This is for informational purposes only. Follow at your own risk.

*This is my first guide so please be kind.*

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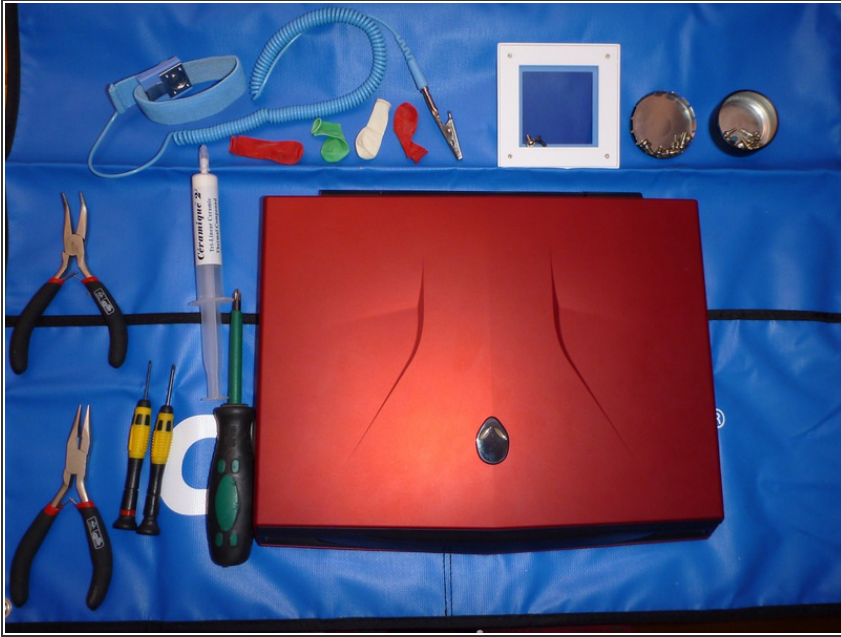
### TOOLS:

- [Phillips #00 Screwdriver](#) (1)
- [Phillips #1 Screwdriver](#) (1)
- [Tweezers](#) (1)
- [Arctic Silver Thermal Paste](#) (1)
- [Portable Anti-Static Mat](#) (1)
- [Anti-Static Wrist Strap](#) (1)
- [Large Needle Nose Pliers](#) (1)
- [Finger Stalls](#) (1)
- [Isopropyl Alcohol](#) (1)

*For cleaning thermal paste*

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## Step 1 — Beginning (Parts, Tools and Laptop)



- Welcome to the Alienware M11xR3 disassembly. Below, I will describe the necessary tools and steps to disassemble the Alienware M11xR3. This disassembly applies to all M11x, including the R1, R2, and R3.
- Required tools:
  - 1x Phillips #1 and #00 Screwdriver
  - 1x Flathead Screwdriver
  - 1x Small Needle Nose Pliers or Tweezers
  - 1x Thermal Paste and Finger Stalls Optional: Small water balloons (to spread thermal paste without getting dirty)
  - 1x Anti-Static Mat
- ☑ I highly recommended reading about static electricity and how it can damage electronic components.



## Step 2 — Remove back plate screws.



- 1. Gently flip over the laptop so that the bottom side is facing up.
- Use a Phillips #1 screwdriver to remove the 8 screws securing the base-plate.

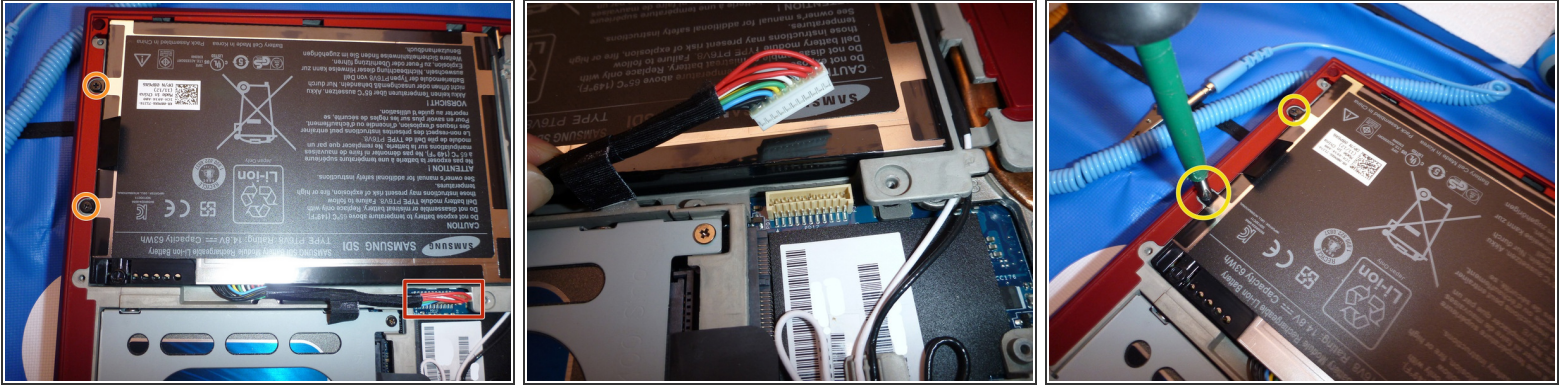
## Step 3 — Remove back plate.



- Lift the bottom cover and remove it, as shown.

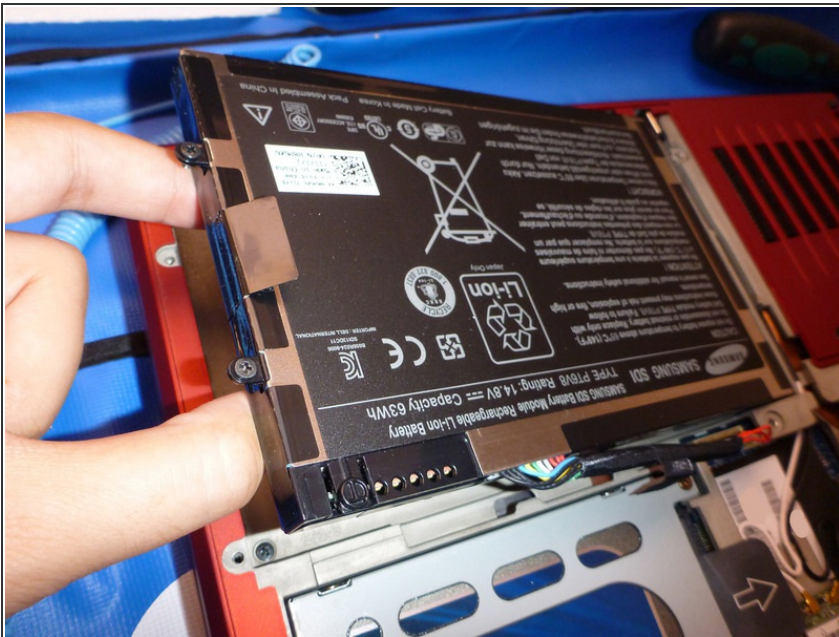


## Step 4 — Unscrew and unplug battery.



- First, remove the battery cable on the plate by pulling vertically.
- Unscrew screws shown.

## Step 5 — Remove Battery.



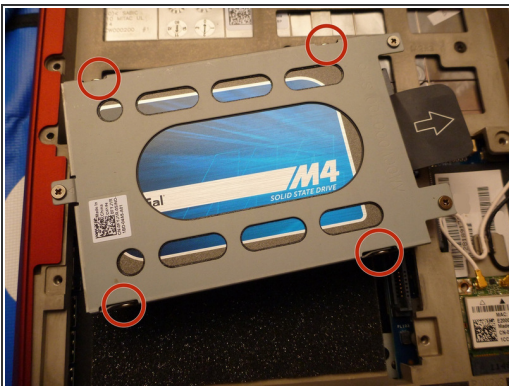
- Remove the battery.

## Step 6 — Remove the HDD



- Remove the hard drive mounting bracket by removing the three screws with the Phillips #1 screwdriver.
- Pull out the hard drive by lifting up on the black tab, as shown.

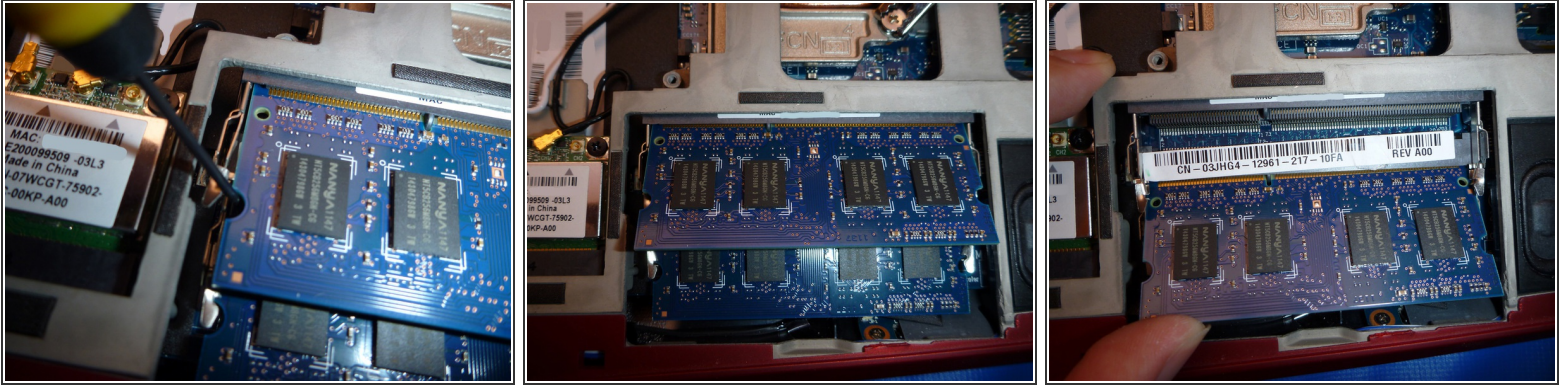
## Step 7 — (Optional) Replace HDD



- In order to remove the hard drive from the mounting bracket, remove the four screws at each corner with the Phillips #1 screwdriver, as shown.
- When installing a new hard drive, never forget to remove the SATA adapter before installation.



## Step 8 — Remove RAM



- Pull the tabs away from RAM, as shown.
- Carefully pull the RAM module to remove.
- Depending of the configuration that you have on your Alienware, there may be another RAM module.

**(i) NOTE:** if you want to upgrade RAM memory please read the manual about which modules are compatible. Here are some specs:

- Number of Sockets: 2
- Max memory: 16384 MB (16GB)
- Memory Comments: PC3-10600 1333Mhz DDR3 SDRAM SO DIMM 204-pin



## Step 9 — Remove WLAN module

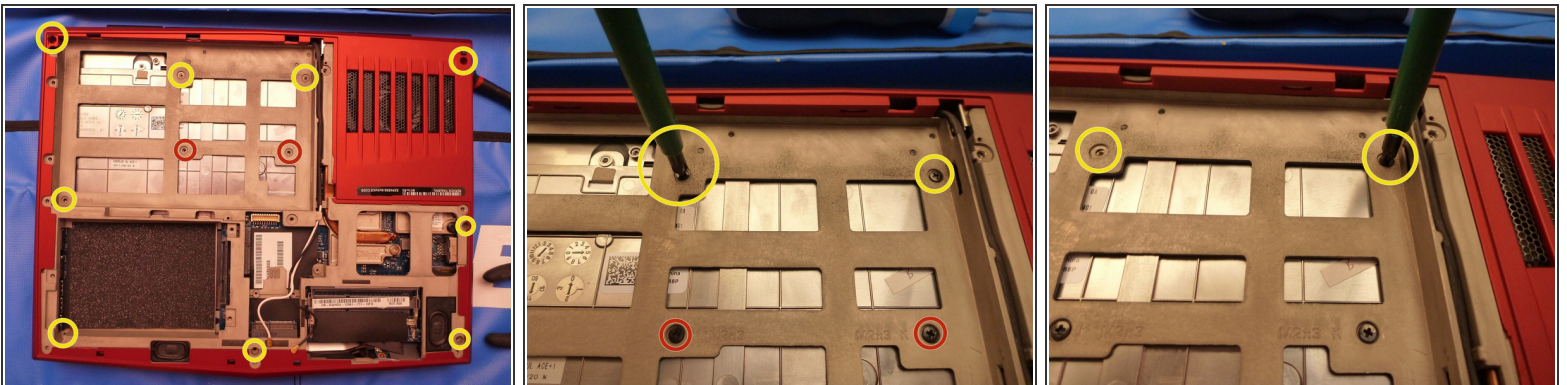


✦ Depending on your Alienware configuration, it can have up to 3 aerial cables.

- Remove the aerial cables vertically with Tweezers or Small Needle Nose Pliers.
- Once the aerial cables are removed, extract the screws.
- Remove the WLAN card.

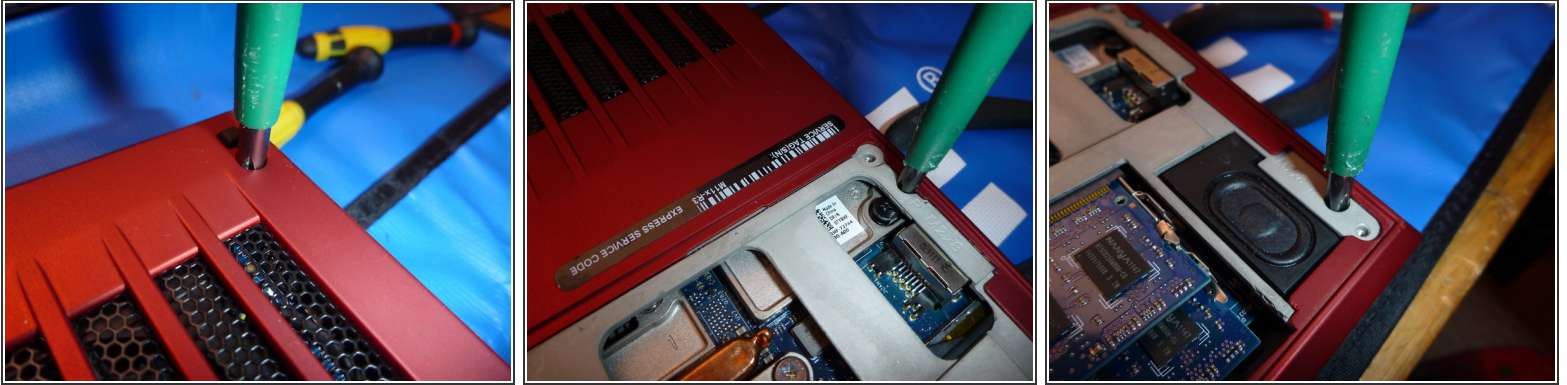
i On USA models, a WWAN card may be located near the WLAN card. Use the same process to remove it.

## Step 10 — Remove chassis and keyboard screws



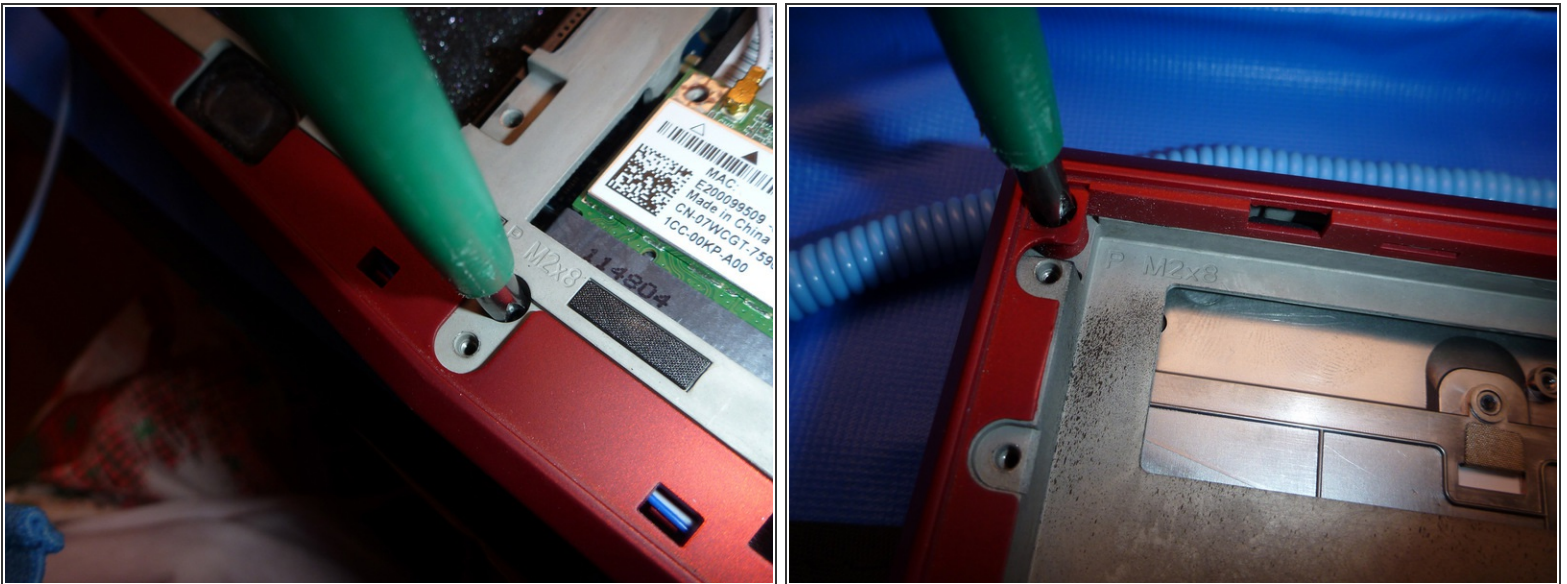
- Chassis screws are marked with yellow circles.
- Keyboard screws are marked with red circles.
- Both the Chassis and Keyboard screws can be removed with a Phillips #1 screwdriver.

## Step 11



- Remove chassis screws.

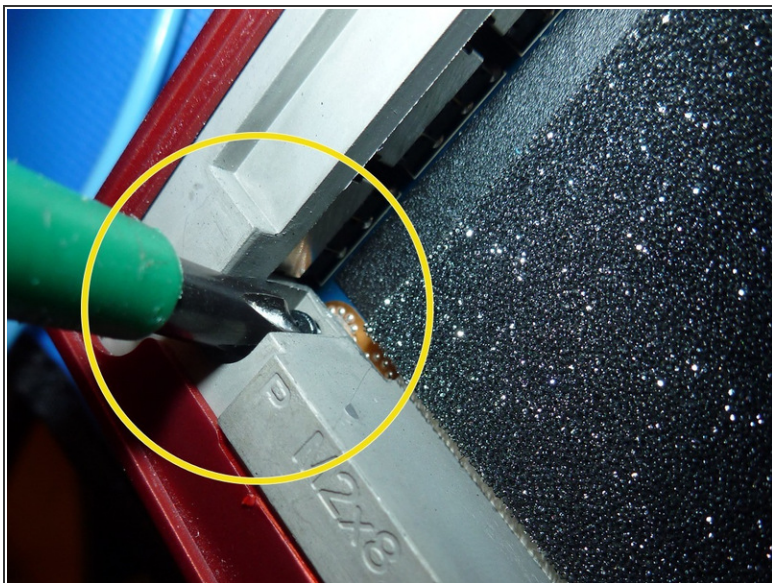
## Step 12



- Remove the bottom chassis screws.

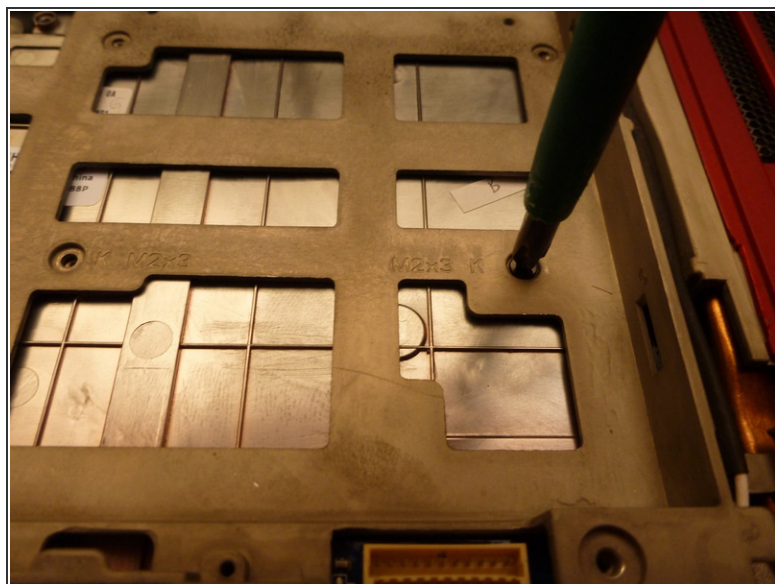
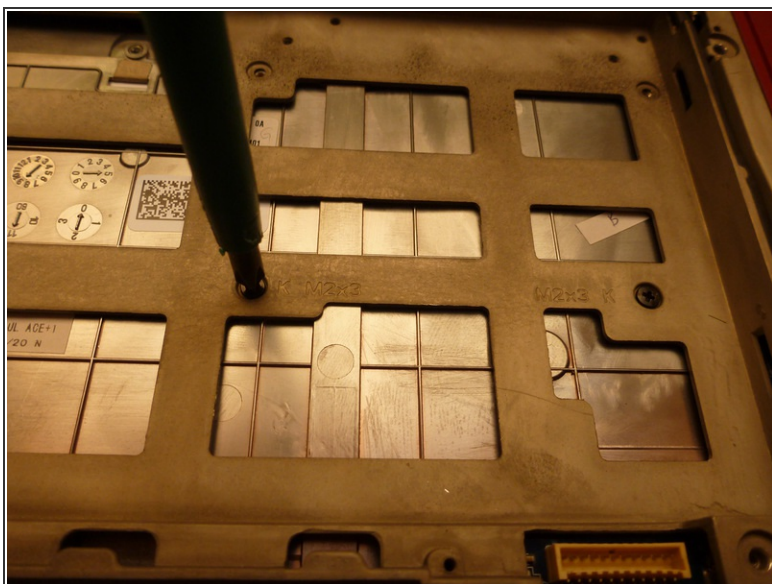


## Step 13



- The screw marked with a yellow circle is near the hard drive bay.

## Step 14



- Remove screws from keyboard.

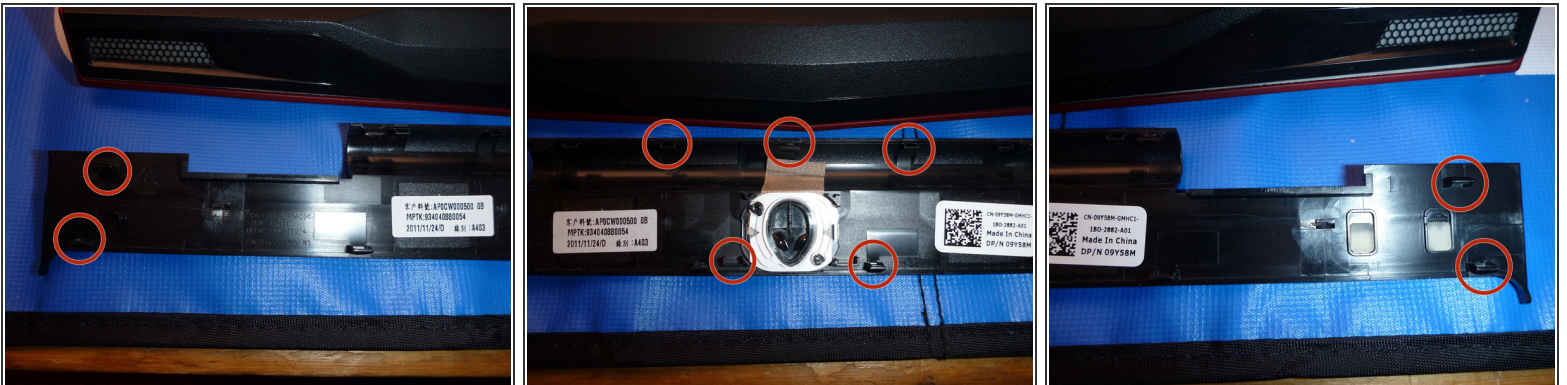


## Step 15 — Remove the cover.



- Use a small flat screwdriver to carefully pry the cover from the chassis.
- Next, use your finger as a lever to extract the cover. The cover has tabs that attach it to the chassis.
- ⓘ In the next step, I'll show you tab locations.

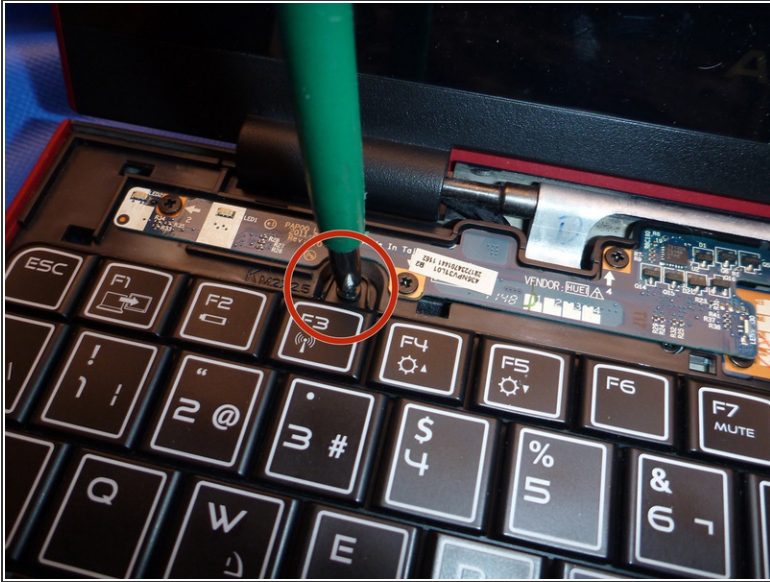
## Step 16 — Tab locations




- Clamping tabs



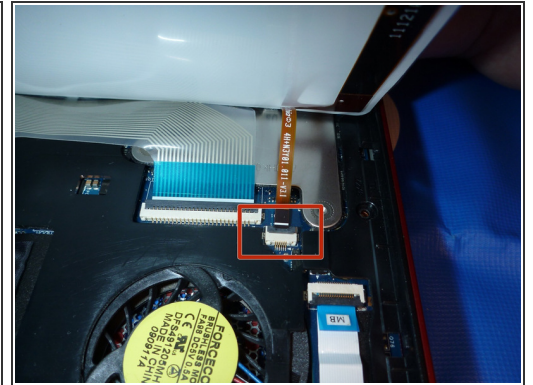
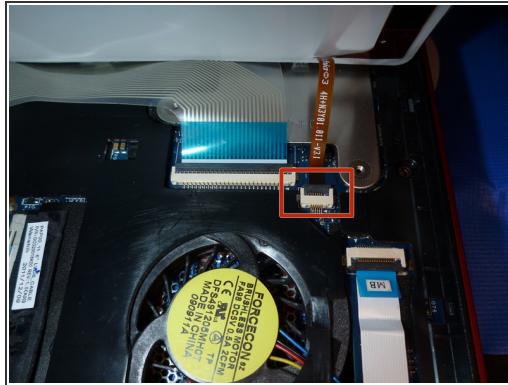
## Step 17





- Remove 2 screws to release the keyboard.

 Wait for the next step to remove the keyboard; there are bus data cables underneath the keyboard that must be removed first.

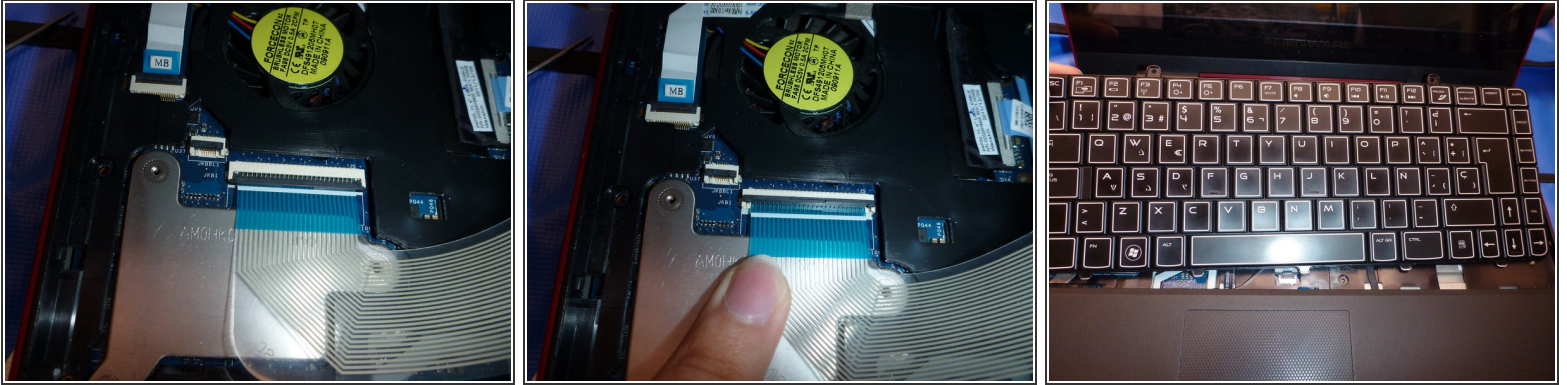
## Step 18 — Remove bus data cables (part 1)



-  There are 2 bus data cables.
-  The thin orange cable is the RGB led keyboard retro illumination.
- Lift the tab to a vertical position to free the bus cable as shown.

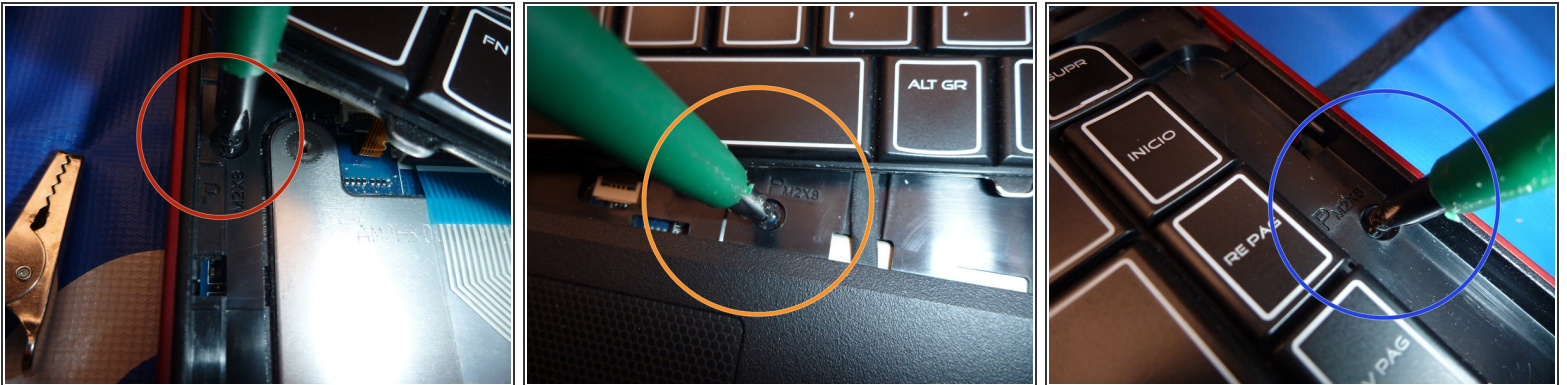


## Step 19 — Remove bus data cables (part 2)



- Free the keyboard bus data cable the same as you did for the RGB bus data cable.
  - Remove the keyboard to replace it; it has pressure points like the previous cover.
- ☞ If the keyboard fails, the best option is to replace it for a new one.

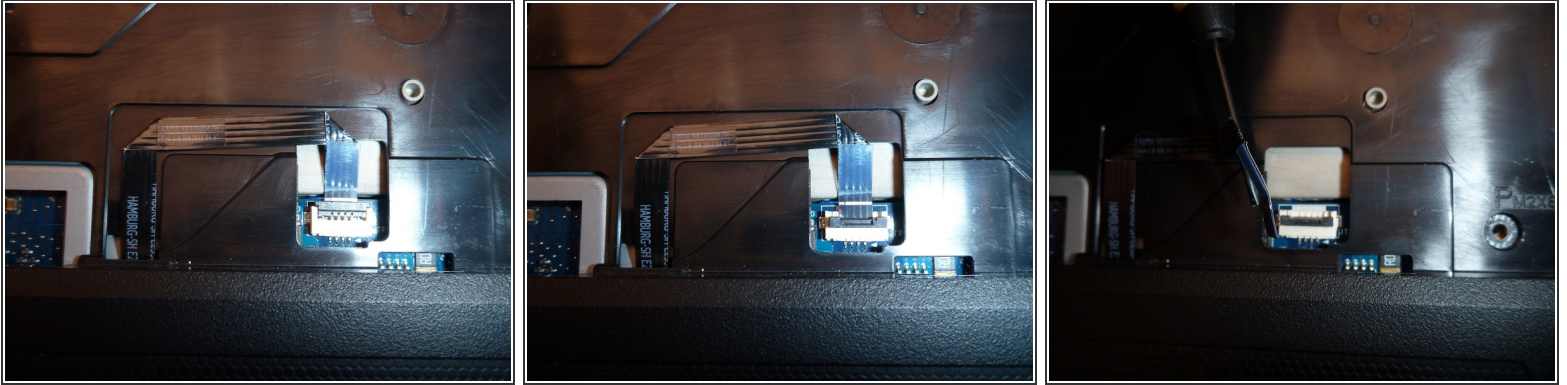
## Step 20 — Remove more chassis screws



- Continue taking out the chassis by unscrewing the 3 shown screws.
  - First one to the left of the RGB bus data cable.
  - Second one at bottom near the touchpad.
  - Third one on the right edge of the laptop.

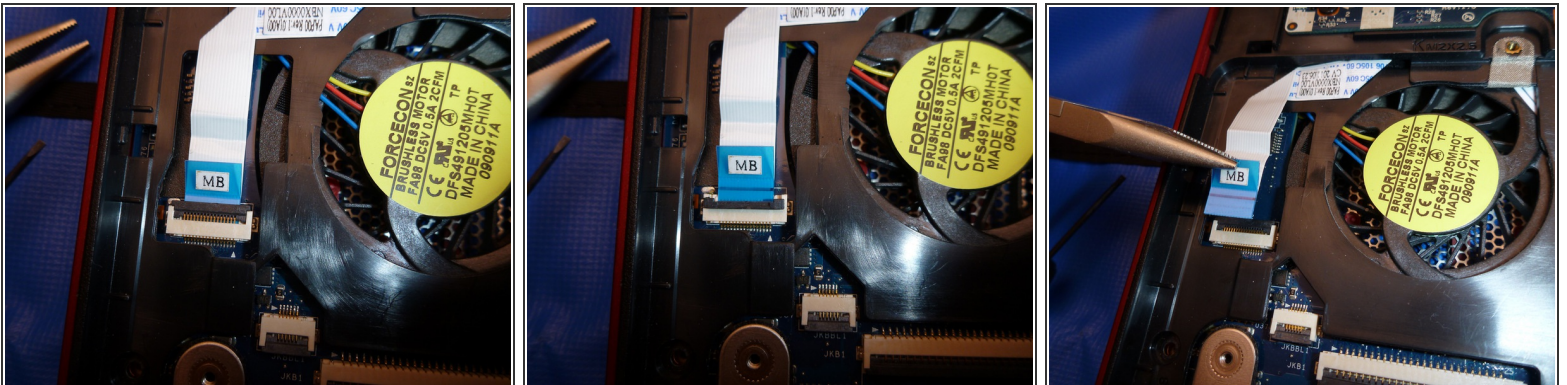


## Step 21 — Remove touchpad data bus cable.



- Lift the tab to disconnect the touchpad data bus cable.

## Step 22 — Remove bus cable to Motherboard.

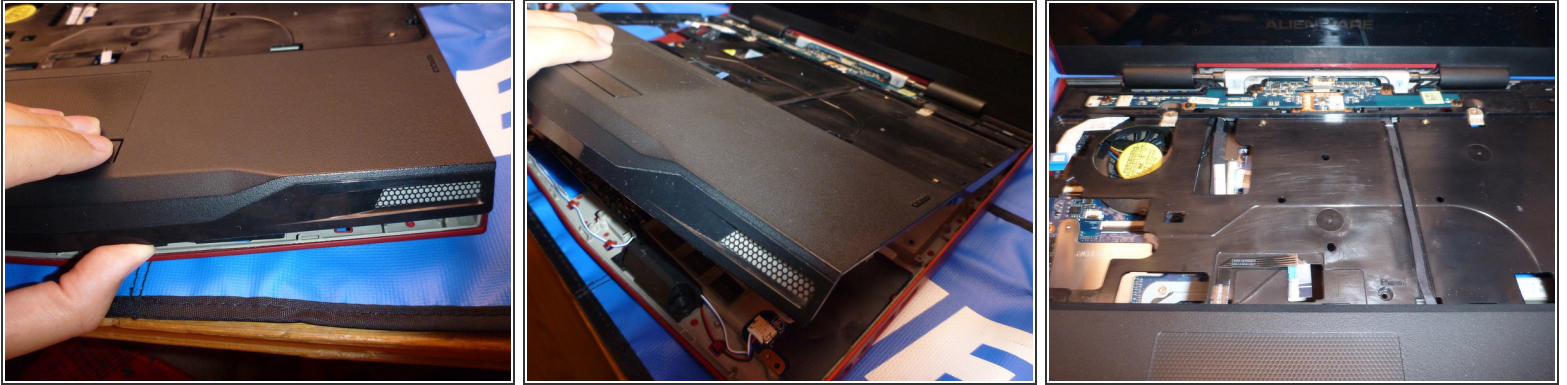


- Extract the bus cable with needle nose pliers by lifting the tab and pulling it away.

⚠ If your computer doesn't power on, then check to make sure this cable is plugged in.

📌 Always lift tabs vertically to free cables.

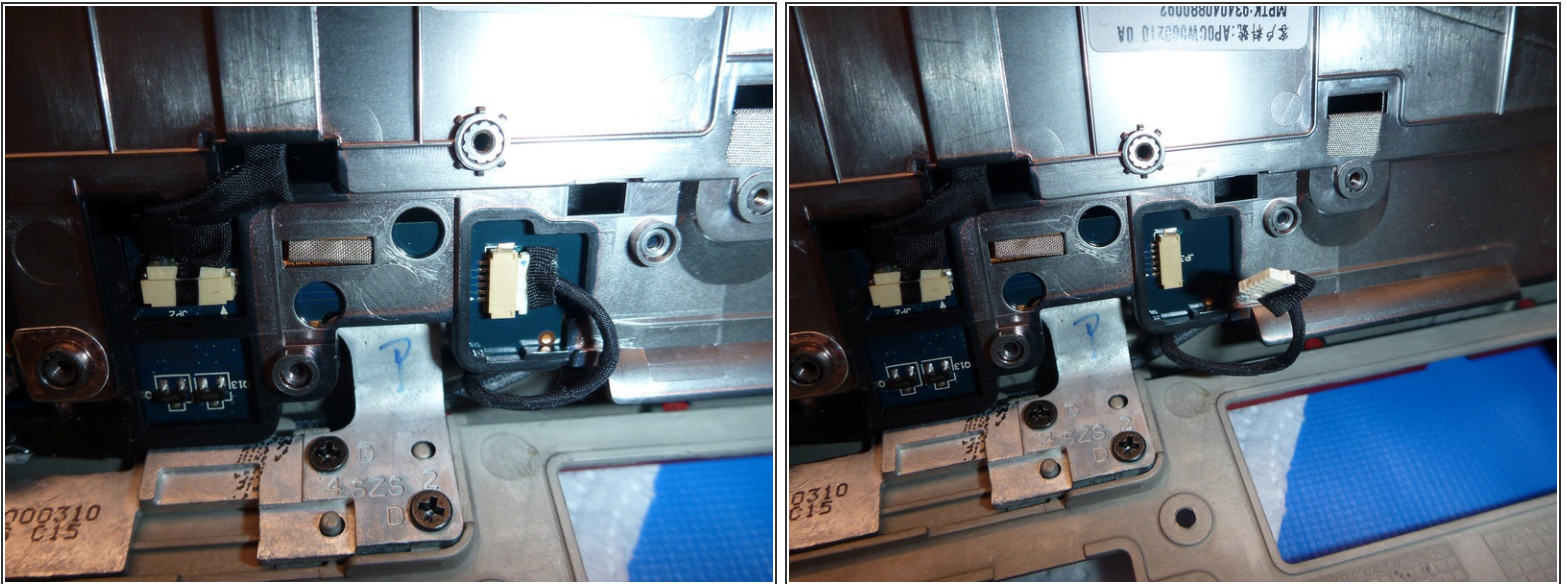
## Step 23



- Lift the case with your fingers, as shown in the pictures.

⚠ Don't remove the case yet. There is another cable on the upper left corner that must be removed to fully extract.

## Step 24

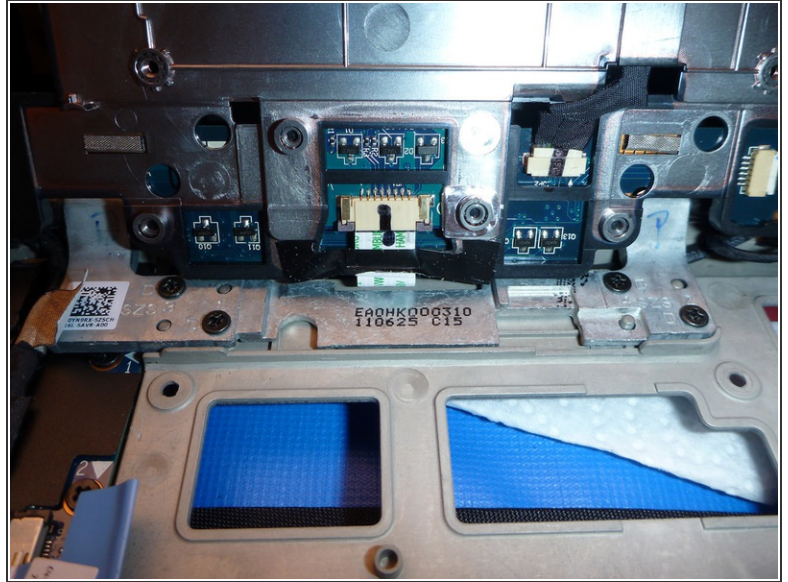
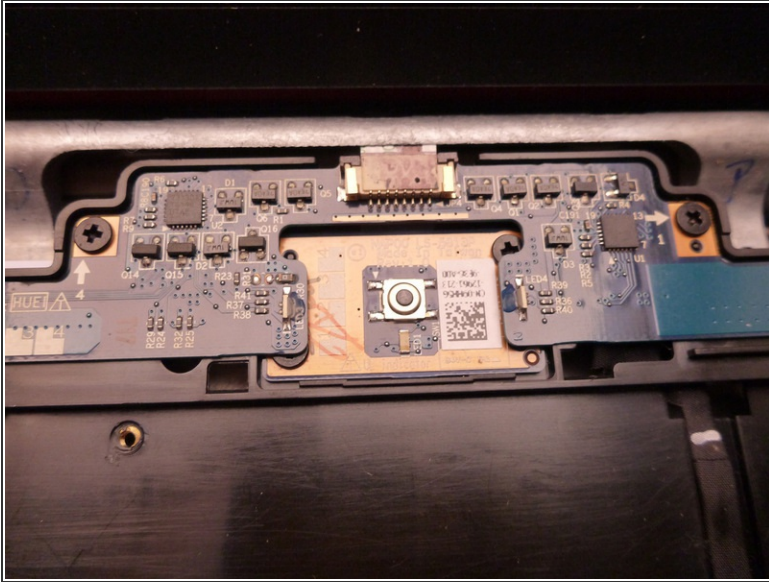



**i** This is the cable that I mentioned in the previous step.

- Pull the cable to the right.

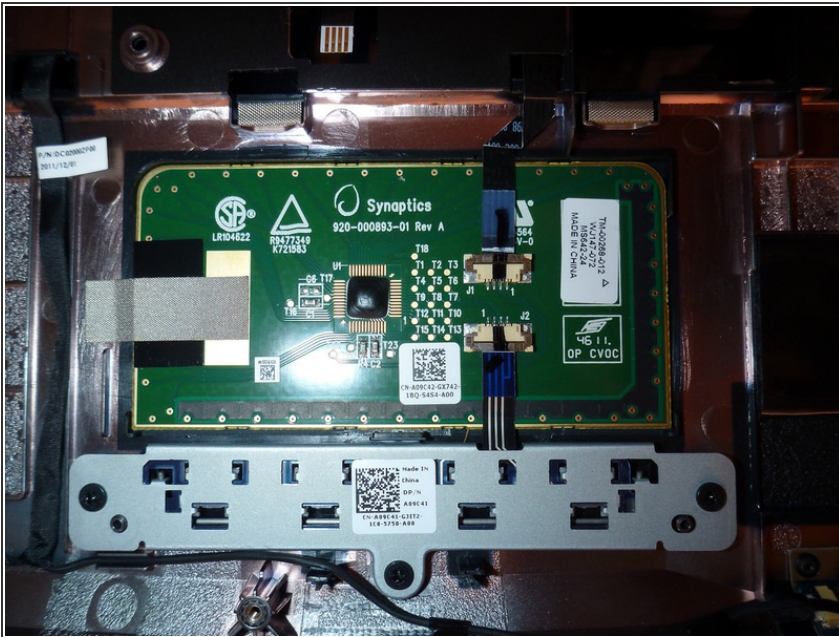



## Step 25



 Top and a bottom view of the board with power on switch and LED status.

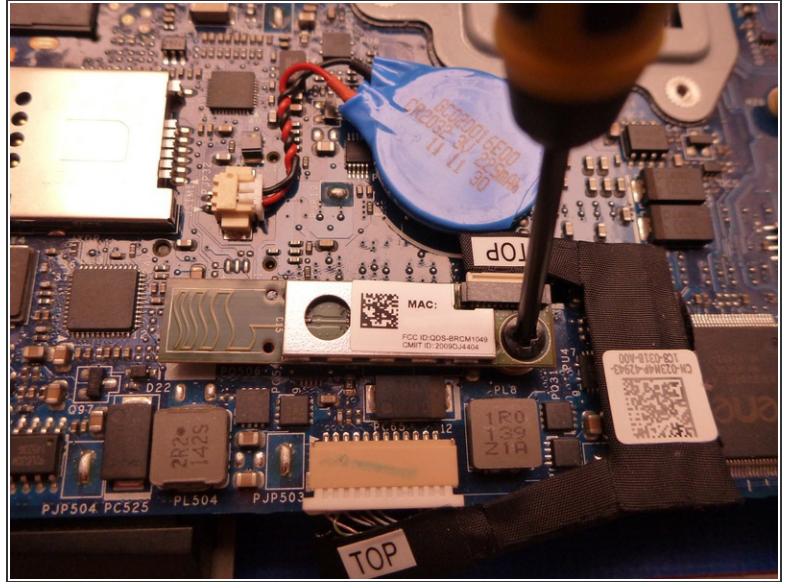
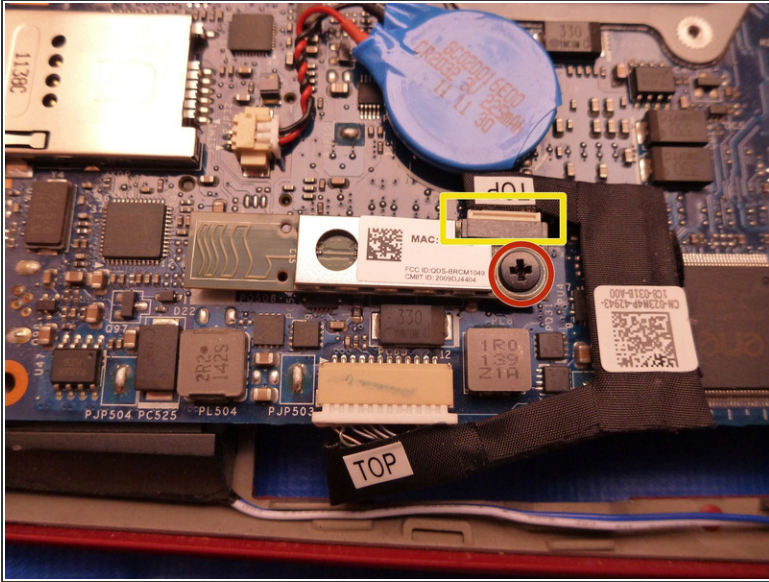
## Step 26



 Bottom view of the touchpad.

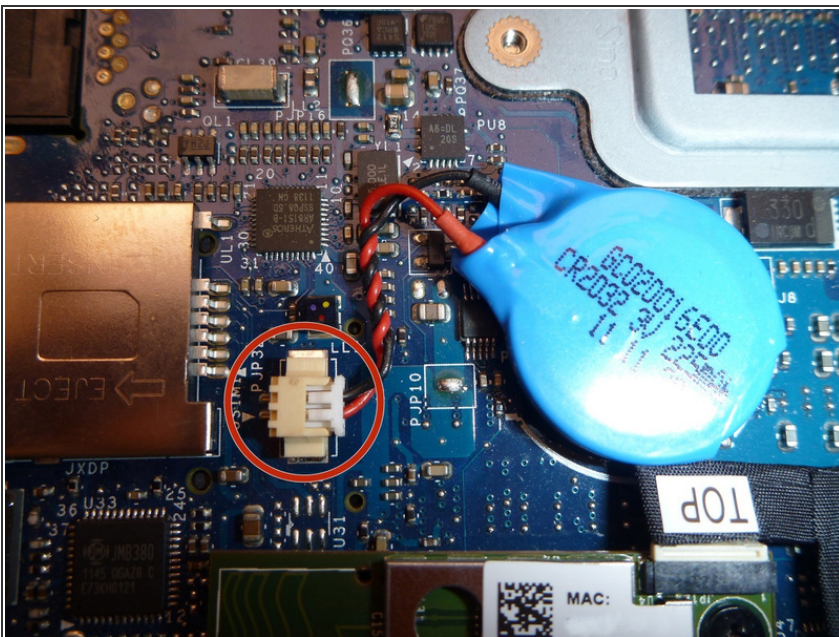


## Step 27 — Removing the bluetooth card.



- Remove the screw.
- Pull the cable off.

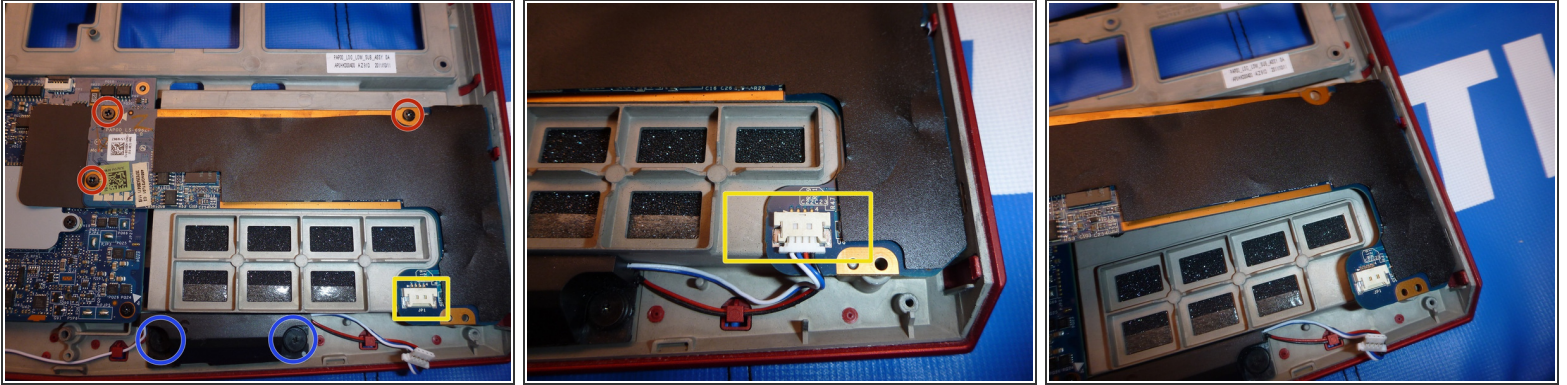
## Step 28 — (Optional) Remove the BIOS battery



- ⓘ This is the BIOS battery for internal configuration and clock. If you have problems with it, remove it by disconnecting it from the motherboard.

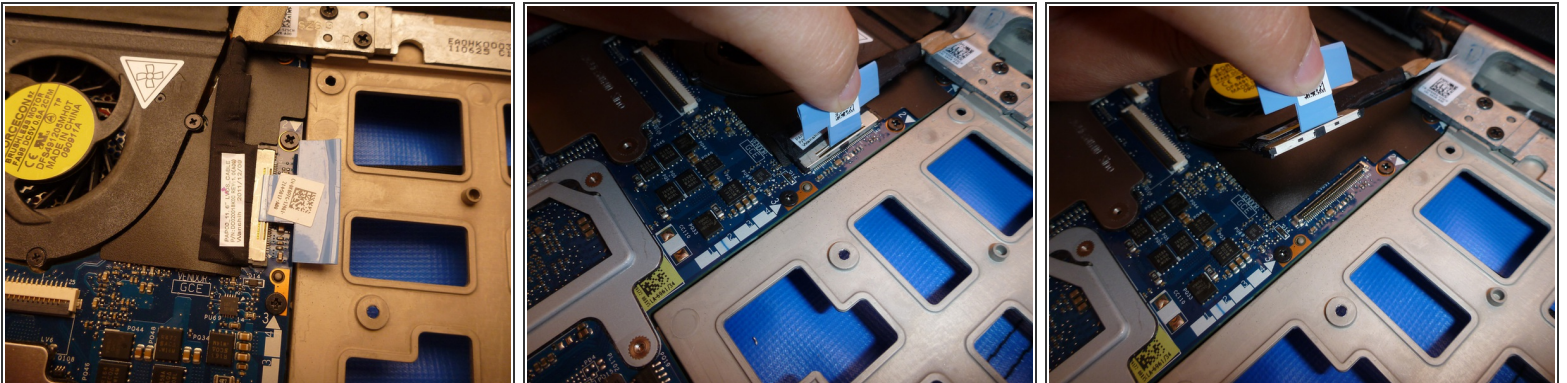


## Step 29



- Pull the speakers connector towards you and away from the I/O board, marked by a yellow square.
- Remove the 3 screws and lift as you see in the picture
- ⚠ Pull the board a little to the left while lifting to prevent damaging the two attached USB 3.0 ports.

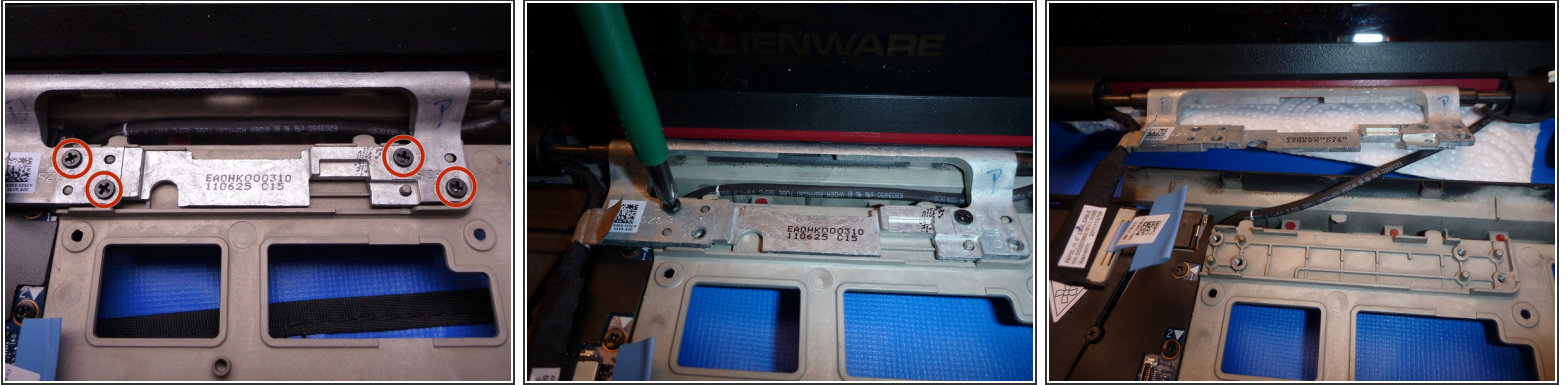
## Step 30 — Removing the display connector.



- Remove the display connector by pulling vertically.
- ✦ Lift using the plastic tab, see the image.

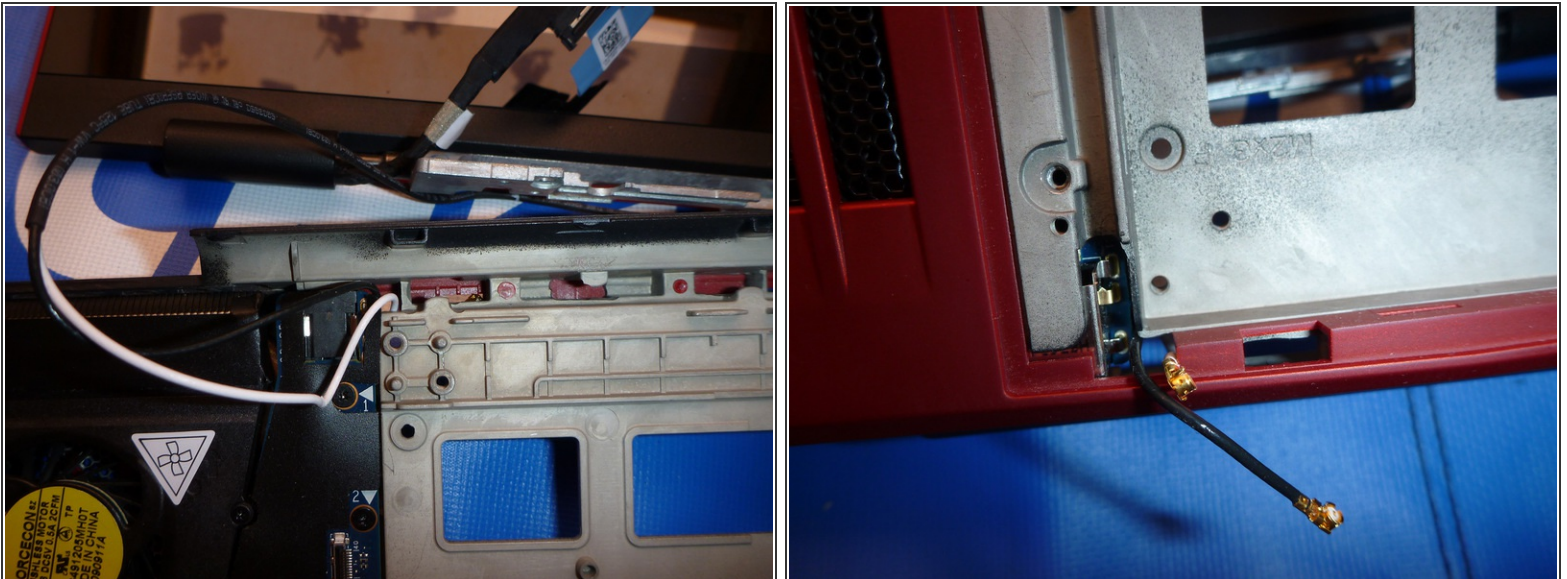


## Step 31 — Removing the monitor mount



- Unscrew the screws in the correct order by using the numbers near the holes.
- ⚠ Make sure you are holding the monitor while unscrewing to prevent dropping and damaging the screen.
- ⚠ After that, you must see the next step to extract the WLAN aerials.

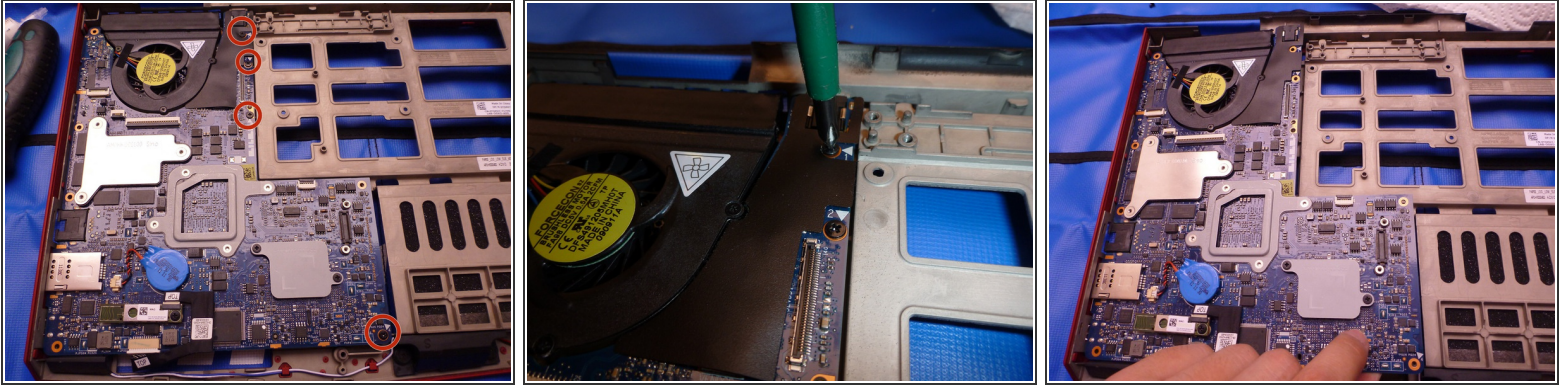
## Step 32 — Pull WLAN cable away with monitor



- ☑ The WLAN cable is the same as in step 9.
- Pass the cable from the bottom of the laptop through the hole carefully.
- ☑ Remember, depending on your Alienware configuration you may have 2 or 3 aerials. USA customers may also have the WWAN aerials



## Step 33 — Removing the motherboard.

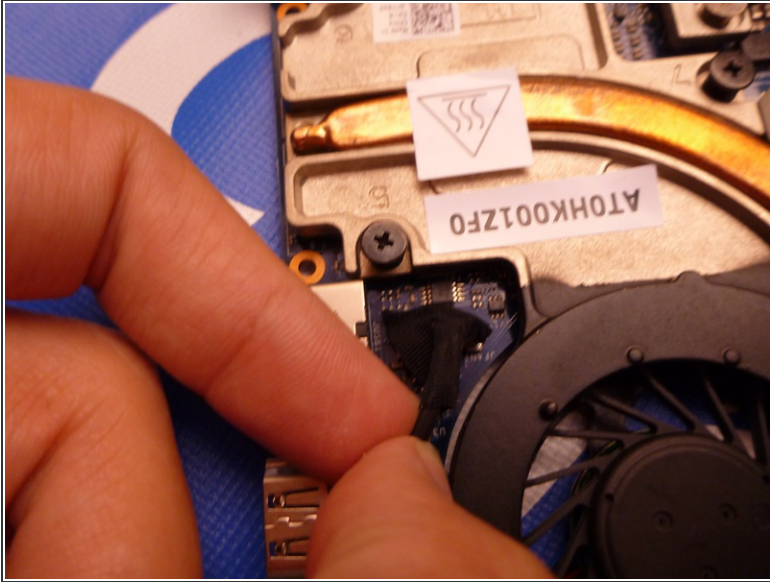


- Remove the four screws, marked by red circles, to remove the motherboard.

⚠ Now lift the motherboard slowly up while moving it to the right. Removing it this way prevents damage to your ports.

- 👉 As you see in the picture, the I/O board and screen connector wasn't here. They must be removed before extracting the motherboard, not like the bluetooth board or coin-cell battery.

## Step 34

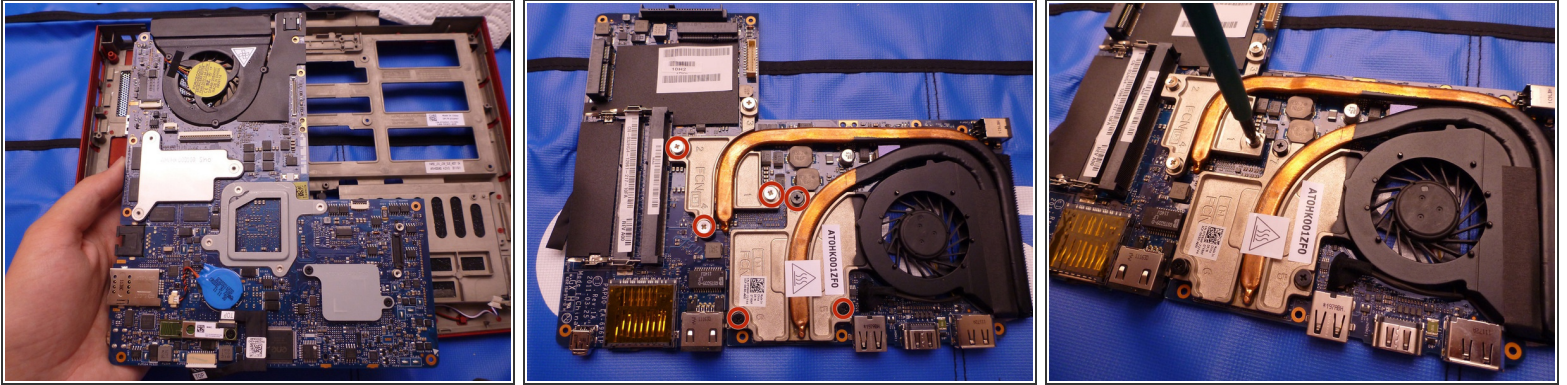


- Remove the vent connector.

- ⓘ You must extract it to remove the heatsink.
- ⓘ To replace the vent, it is not necessary remove the heatsink. You must do this step and in the next step I have marked in green the 3 screws that you need to remove.
- ⓘ To maintain good ventilation, please clean with compressed air.



## Step 35 — Remove heat sink and apply thermal paste



- i If this is your first time applying thermal paste, I recommend using a quality thermal paste brand like Arctic Silver and reading a [guide](#) here on iFixit.
- ! With the motherboard out, turn it upside down on a static free surface.
  - To remove the heatsink and replace thermal paste, remove the screws in the correct order (marked with a number on the heatsink).
- ! Clean old thermal paste with isopropyl-alcohol. Ensure that after applying thermal paste it doesn't leak onto the motherboard (if it's on the green square, it's fine).
- ! When putting the heat sink back on, try to have the screw holes align on your first try. This is to maintain an even spread of the thermal paste.
  - Rescrew in the correct order (refer to the numbers on the heat sink).
- i Tighten each screw one at a time to end up with good heat dissipation.

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